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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/579,278	02/13/2007	Kurt Lappe	6281-000028/US/NP	8252
27572 7590 10/13/2010 HARNESS, DICKEY & PIERCE, P.L.C. P.O. BOX 828 BLOOMFIELD HILLS, MI 48303			EXAMINER HINZE, LEO T	
			ART UNIT 2854	PAPER NUMBER
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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/579,278	Applicant(s) LAPPE, KURT	
	Examiner LEO T. HINZE	Art Unit 2854	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 12 July 2010.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-3,5,7,9,10,18-20 and 22-27 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-3,5,7,9,10,18-20 and 22-27 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date <u>20100823</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Continued Examination Under 37 CFR 1.114

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 12 July 2010 has been entered.

Response to Arguments

2. Applicant's arguments with respect to claims 1-3, 5, 7, 9, 10, 18-20, 23-27 have been considered but are moot in view of the new ground(s) of rejection.

Claim Rejections - 35 USC § 112

3. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

4. Claims 1-3, 5, 7, 9, 10, and 23-26 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

a. Regarding claim 1, the claim recites some limitations that imply a specific order of steps, and other limitations that appear to contradict a specific order of steps.

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b. Claim 1 recites “actively drying... after the color printing and before the coating” and “actively drying... after the coating and before the color printing.” However, the recitation of the steps of coating and printing do not require these steps to be in any particular order.

c. Claim 1 also recites “wherein the order and frequency of the steps of the method are configured to be varied arbitrarily.” Merely using the term “arbitrarily” infuses this claim limitation with such uncertainty to make it unclear in which order of performance the method steps are being claimed. Additionally, performing some steps before others appears to result in an inoperable method. For example, if one were to apply adhesive, then dry the adhesive, and then print, and then try to apply the transfer layer, it appears that the ink printed over the adhesive would not allow the transfer layer to properly adhere to the substrate.

d. Regarding claim 23, it is unclear how actively drying could completely dry the adhesive layer if the active drying is performed after printing and before application of the adhesive, as claimed in claim 1.

Claim Rejections - 35 USC § 103

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

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6. Claims 1-3, 5, 9, 10, 18-20, and 22-27 are rejected under 35 U.S.C. 103(a) as being unpatentable over Lappe et al., US 5,565,054 A (hereinafter Lappe) in view of Vaughn et al., US 6,983,686 B2 (hereinafter Vaughn) and Gross et al., US 5,603,259 A (hereinafter Gross).

a. Regarding claim 1:

Lappe teaches a method for the production of print products by combining various immediately successive processing methods, the method comprising the steps of: coating the print products to be produced with a film (10, Fig. 1) at predetermined positions in one method step (col. 1, lines 6-13) comprising: partially coating said print products with a thin adhesive layer (col. 2, lines 10-11); providing a transfer film having at least three layers, namely, a carrier foil, a parting layer and a transfer layer (col. 2, lines 12-14); removing said transfer layer from said carrier foil and transferring it at least partially to said print products with a transfer or printing unit, wherein said transfer layer adheres to the print products (col. 2, lines 15-18); color printing ("multi-color printing device," col. 4, line 42); wherein the print product to be produced successively undergo the preceding steps in one continuous sequence without intermediate storage (Fig. 1 shows these several steps performed in one continuous sequence).

Lappe does not teach providing an embossing and/or a structure according to an embossing and/or a structure processing method in a further method step; actively drying with a drying device after printing or after applying the adhesive.

Vaughn teaches a method and apparatus of embossing and printing a web (col. 2, lines 1-8).

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It would have been obvious to a person having ordinary skill in the art at the time the invention was made to modify Lappe to provide an embossing to embossing and printing processing methods in further method steps, either before or after the processes of Lappe, and wherein the print products to be produced successively undergo the steps of the method without intermediate storage as taught by Vaughn, because one having ordinary skill would know that combining these known prior art methods would provide the printed product of Lappe with additional desirability and functionality through the embossed and printed features.

Gross teaches a printing and foil transfer method including drying the printed material with a heat tunnel after each printing step and after applying adhesive (col. 3, lines 37-45).

It would have been obvious to a person having ordinary skill in the art at the time the invention was made to modify Lappe to include a heat tunnel after each printing step and after the adhesive application step, because Gross teaches that drying after printing and adhesive application is well known in the art, and would predictably provide the benefits of, for example, preventing excessive ink smearing after printing.

b. Regarding claim 2, the combination of Lappe, Vaughn, and Gross teaches the method of claim 1 as discussed in the rejection of claim 1 above. The combination of Lappe, Vaughn, and Gross also teaches wherein the print products to be produced are first coated with a film and then provided with a structure (Lappe and Vaughn could be combined in several ways, but the two most likely are adding Vaughn either before or

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after the process steps of Lappe; adding Vaughn after Lappe results in coating before embossing).

c. Regarding claim 3, the combination of Lappe, Vaughn, and Gross teaches the method of claim 1 as discussed in the rejection of claim 1 above. The combination of Lappe, Vaughn, and Gross also teaches wherein the print products to be produced are first provided with a structure and are then coated with a film (Lappe and Vaughn could be combined in several ways, but the two most likely are adding Vaughn either before or after the process steps of Lappe; adding Vaughn before Lappe results in coating before embossing).

d. Regarding claim 5, the combination of Lappe, Vaughn, and Gross teaches the method of claim 1 as discussed in the rejection of claim 1 above. The combination of Lappe, Vaughn, and Gross also teaches wherein the print products to be produced can be color printed before or after being coated with a film or after being stamped (Lappe and Vaughn could be combined in several ways, but the two most likely are adding Vaughn either before or after the process steps of Lappe; adding Vaughn before Lappe results in coating before embossing).

e. Regarding claim 9, the combination of Lappe, Vaughn, and Gross teaches the method of claim 1 as discussed in the rejection of claim 1 above. The combination of Lappe, Vaughn, and Gross also teaches wherein the print products to be produced are submitted to a pressing operation in another step of the method after the film coating (Lappe: pressure roller 16 and counter pressure roller 17, Fig. 1).

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f. Regarding claim 10, the combination of Lappe, Vaughn, and Gross teaches the method of claim 1 as discussed in the rejection of claim 1 above. The combination of Lappe, Vaughn, and Gross also teaches wherein the transfer film can be controlled with respect to the advance thereof with regard to the printing cylinder independently from the rotation thereof (in combining Vaughn with Lappe, one would retain the ability to individually control the different processing stations).

g. Regarding claim 18:

Lappe teaches a method for producing a print product, said method comprising:

conveying a base layer (2, Fig. 1) successively and continuously through a plurality of processing steps in which: a.) a base layer is coated with an adhesive layer in a first stage (col. 1, lines 10-11); b.) a transfer film is provided having at least a carrier foil layer, a parting layer and said transfer layer, wherein the transfer layer is separated from the film and adhered to said base layer with a transfer or printing unit in a second stage (col. 2, lines 12-14); d.) the base layer is printed (printing unit 8, Fig. 1); e.) the base layer is dried in a drying unit in a fifth stage located downstream of the stages performing steps a.) (base layer has time to dry between steps, Fig. 1); and wherein the steps are performed successively without intermediate storage (Fig 1 – no storage of 2 between stages).

Lappe does not teach c.) said base layer is stamped and/or embossed in a third stage before or after said step b.); and d.) the base layer is printed in a fourth stage; the base layer is actively dried in a drying unit including one of a ventilator blowing or

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infrared radiation in a fifth stage locate downstream of the stages performing steps a.) or d.).

Vaughn teaches a method and apparatus of embossing and printing a web (col. 2, lines 1-8).

It would have been obvious to a person having ordinary skill in the art at the time the invention was made to modify Lappe to provide an embossing to embossing and printing processing methods in further method steps, either before or after the processes of Lappe, and wherein the print products to be produced successively undergo the steps of the method without intermediate storage as taught by Vaughn, because one having ordinary skill would know that combining these known prior art methods would provide the printed product of Lappe with additional desirability and functionality through the embossed and printed features.

Gross teaches a printing and foil transfer method including drying the printed material with a heat tunnel after each printing step and after applying adhesive (col. 3, lines 37-45).

It would have been obvious to a person having ordinary skill in the art at the time the invention was made to modify Lappe to include a heat tunnel after each printing step and after the adhesive application step, because Gross teaches that drying after printing and adhesive application is well known in the art, and would predictably provide the benefits of, for example, preventing excessive ink smearing after printing.

h. Regarding claim 19:

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Lappe teaches a combined in-line printing apparatus comprising: a gluing unit to selectively apply an adhesive to a base printing material fed through said printing apparatus (col. 2, lines 10-11); a film transfer device to transfer a transfer layer of a transfer film to said base material, said transfer film having at least a carrier foil layer, a parting layer and said transfer layer (col. 2, lines 12-14); and wherein said base layer interacts with said gluing unit, said structure and/or stamping device, and said film transfer device in succession without intermediate storage (no storage between stages, Fig. 1); a drying unit to dry said adhesive (Lappe: adhesive dries after being applied, Fig. 1), and a pressing unit having a plurality of calenders to compress said base layer and said transfer layer (Lappe: 16, 17, Fig. 1)

Lappe does not teach a structure and/or stamping device to form a pattern in said base material; actively drying said adhesive.

Vaughn teaches a method and apparatus of embossing and printing a web (col. 2, lines 1-8).

It would have been obvious to a person having ordinary skill in the art at the time the invention was made to modify Lappe to provide an embossing to embossing and printing processing methods in further method steps, either before or after the processes of Lappe, and wherein the print products to be produced successively undergo the steps of the method without intermediate storage as taught by Vaughn, because one having ordinary skill would know that combining these known prior art methods would provide the printed product of Lappe with additional desirability and functionality through the embossed and printed features.

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Gross teaches a printing and foil transfer method including drying the printed material with a heat tunnel after each printing step and after applying adhesive (col. 3, lines 37-45).

It would have been obvious to a person having ordinary skill in the art at the time the invention was made to modify Lappe to include a heat tunnel after each printing step and after the adhesive application step, because Gross teaches that drying after printing and adhesive application is well known in the art, and would predictably provide the benefits of, for example, preventing excessive ink smearing after printing.

i. Regarding claim 20, the combination of Lappe, Vaughn, and Gross teaches the device of claim 19 as discussed in the rejection of claim 19 above. The combination of Lappe, Vaughn, and Gross also teaches wherein said base layer interacts with said film transfer device before said stamping device (Lappe and Vaughn could be combined in several ways, but the two most likely are adding Vaughn either before or after the process steps of Lappe; adding Vaughn after Lappe results in coating before embossing).

j. Regarding claim 22, the combination of Lappe, Vaughn, and Gross teaches the device of claim 21 as discussed in the rejection of claim 21 above. The combination of Lappe, Vaughn, and Gross also teaches wherein said drying unit is downstream of said gluing unit (Lappe: glue begins to dry after application, Fig. 1).

k. Regarding claim 23, the combination of Lappe, Vaughn, and Gross teaches the method of claim 1 as discussed in the rejection of claim 1 above. The combination of Lappe, Vaughn, and Gross also teaches wherein actively drying with the drying device

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completely dries the adhesive layer (addition of the heat tunnels of Gross, will completely dry the adhesive, when the combination of Lappe and Vaughn is arranged such that the adhesive is applied before printing, and there are dryers located after each adhesive step and printing step).

l. Regarding claim 24, the combination of Lappe, Vaughn, and Gross teaches the method of claim 1 as discussed in the rejection of claim 1 above. The combination of Lappe, Vaughn, and Gross also teaches wherein the drying step include drying with infrared radiation (Gross: heat tunnel, col. 3, lines 37-45).

m. Regarding claim 25, the combination of Lappe, Vaughn, and Gross teaches the method of claim 1 as discussed in the rejection of claim 1 above. The combination of Lappe, Vaughn, and Gross also teaches wherein the drying device includes a first part on a first side of the print products and a second part on a second side of the print products (Gross: heat tunnel 20 fully envelops the printed web, Fig. 1).

n. Regarding claim 26, the combination of Lappe, Vaughn, and Gross teaches the method of claim 1 as discussed in the rejection of claim 1 above. The combination of Lappe, Vaughn, and Gross also teaches wherein the coating of said print products with a thin adhesive layer, the providing an embossing and/or structure, and the color printing are all executed at a single location (it appears the combination of Lappe, Vaughn, and Gross would result in a method that is performed all at a single location).

o. Regarding claim 27, the combination of Lappe, Vaughn, and Gross teaches the device of claim 21 as discussed in the rejection of claim 21 above. The combination of

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Lappe, Vaughn, and Gross also teaches wherein said drying unit includes infrared radiation (Gross: heat tunnel, col. 3, lines 37-45).

7. Claim 7 is rejected under 35 U.S.C. 103(a) as being unpatentable over Lappe in view of Vaughn and Gross as applied to claim 1 above, and further in view of Miyamoto et al., US 6,033,509 A (hereinafter Miyamoto).

The combination of Lappe, Vaughn, and Gross teaches the method of claim 1 as discussed in the rejection of claim 1 above.

The combination of Lappe, Vaughn, and Gross does not teach wherein a transfer film that has been supplied for the film printing method is stretched in the direction of width.

Miyamoto teaches stretching of a transfer film prior to application to reduce wrinkles in the transfer film (col. 6, lines 28-29)

It would have been obvious to a person having ordinary skill in the art at the time the invention was made to modify Lappe wherein a transfer film that has been supplied for the film printing method is stretched in the direction of width as taught by Miyamoto, because this helps reduce wrinkles in the transfer film.

Conclusion

8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Leo T. Hinze whose telephone number is 571.272.2864. The examiner can normally be reached on M-F 8-5.

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Judy Nguyen can be reached on 571.272.2258. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Leo T. Hinze
Patent Examiner
AU 2854
09 October 2010

/Judy Nguyen/
Supervisory Patent Examiner, Art Unit 2854